U. S. DEPARTMENT OF AGRICULTURE

Forest Service

Ranger Stations

Appalachian Forest Experiment Station

FOREST SERVICE
ROCKY MOUNTAIN FOREST & RANGE EXP. S
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RELATION OF BYRAM HAZE METER READING TO SAFE VISIBILITY DISTANCE OF A SMALL SMOKE

(All distances in miles and tenths)

METER READING	SAFE VISIBILITY DISTANCE	METER READING	SAFE VISIBILITY DISTANCE	METER READING	SAFE VISIBILITY DISTANCE	METER READING	SAFE VISIBILITY DISTANCE	METER READING	SAFE VISIBILITY DISTANCE
A	B	A	B	A	B	A	B	A	B
1.0	1.8	4.0	5.3	7.0	8.0	10.0	10.2	13.0	12.2
1.1	2.0	4.1	5.4	7.1	8.1	10.1	10.3	13.1	12.2
1.2	2.1	4.2	5.5	7.2	8.2	10.2	10.4	13.2	12.3
1.3	2.2	4.3	5.6	7.3	8.2	10.3	10.4	13.3	12.4
1.4	2.4	4.4	5.7	7.4	8.3	10.4	10.5	13.4	12.4
1.5	2.5	4.5	5.8	7.5	8.4	10.5	10.6	13.5	12.5
1.6	2.6	4.6	5.9	7.6	8.5	10.6	10.6	13.6	12.6
1.7	2.8	4.7	6.0	7.7	8.5	10.7	10.7	13.7	12.6
1.8	2.9	4.8	6.1	7.8	8.6	10.8	10.8	13.8	12.7
1.9	3.0	4.9	6.2	7.9	8.7	10.9	10.8	13.9	12.7
2.0	3.1	5.0	6.3	8.0	8.8	11.0	10.9	14.0	12.8
2.1	3.3	5.1	6.4	8.1	8.9	11.1	11.0	14.1	12.9
2.2	3.4	5.2	6.5	8.2	8.9	11.2	11.0	14.2	12.9
2.3	3.5	5.3	6.6	8.3	9.0	11.3	11.1	14.3	13.0
2.4	3.6	5.4	6.7	8.4	9.1	11.4	11.2	14.4	13.0
2.5	3.7	5.5	6.7	8.5	9.2	11.5	11.2	14.5	13.1
2.6	3.9	5.6	6.8	8.6	9.2	11.6	11.3	14.6	13.2
2.7	4.0	5.7	6.9	8.7	9.3	11.7	11.4	14.7	13.2
2.8	4.1	5.8	7.0	8.8	9.4	11.8	11.4	14.8	13.3
2.9	4.2	5.9	7.1	8.9	9.4	11.9	11.5	14.9	13.4
3.0	4.3	6.0	7.2	9.0	9.5	12.0	11.6	15.0	13.4
3.1	4.4	6.1	7.3	9.1	9.6	12.1	11.6		
3.2	4.5	6.2	7.4	9.2	9.7	12.2	11.7		
3.3	4.6	6.3	7.4	9.3	9.7	12.3	11.8		
3.4	4.7	6.4	7.5	9.4	9.8	12.4	11.8		
3.5	4.8	6.5	7.6	9.5	9.9	12.5	11.9		
3.6	4.9	6.6	7.7	9.6	9.9	12.6	12.0		
3.7	5.0	6.7	7.8	9.7	10.0	12.7	12.0		
3.8	5.1	6.8	7.9	9.8	10.1	12.8	12.1		
3.9	5.2	6.9	7.9	9.9	10.1	12.9	12.1		

For general administrative purposes, readings given by the Byram haze meter should be slightly corrected before being regarded as the safe visibility distances of small smokes. The relation between the visual range of a small smoke (approximately equivalent to a 12x12 foot fire in hardwood leaves) and the corresponding haze meter readings is given in the above table. Haze meter readings from 1 to 15 miles are given in column A and the corresponding safe visibility distances of a small smoke in column B. It will be noticed that for meter readings from 8 to 13 miles, the correction factor is small and in regions where the visibility distance is usually between these limits, the correction factor may be ignored. However, where meter readings are often less than 8 miles or more than 13 miles, or where the maximum efficiency of the meter is desired, the corrected values should be used.

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